



STATE OF WASHINGTON

## STATE BUILDING CODE COUNCIL

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### MINUTES MECHANICAL, VENTILATION AND ENERGY CODES COMMITTEE

**Date:** July 8, 2009

**Location:** Senate Hearing Room 2, Cherberg Building, Olympia

**MVE Committee Members Present:** Mari Hamasaki, Chair; Kristyn Clayton; Jerry Mueller; Tien Peng; Dale Wentworth; Peter DeVries

**Other Council Members Present:** Ray Allshouse, John Cochran, Angie Homola, Tom Kinsman, Representative Bruce Dammeier

**MVE Committee Members Absent:** Don Jordan

**Visitors Present:** Javad Maadanian, Paul O'Connor, Brian Minnich, Bob Eugene, Kate Tate, Chuck Murray, Chuck Day, Harry Indig, Eric Lohnes, Paul Burckhard, Patrick Hayes, Jeanette McKague, John Hogan, Pete Crow, Kraig Stevenson

**Staff Present:** Tim Nogler, Krista Braasma, Joanne McCaughan, Sue Mathers

### CALL TO ORDER

Mari Hamasaki, Chair of the MVE Committee, called the meeting to order at 12:02 p.m. Mari welcomed everyone. Introductions were made.

### REVIEW AND APPROVE AGENDA

The agenda was reviewed. Kristyn Clayton added a discussion of the proposal to adopt Chapter 11 of the International Residential Code (IRC) under "Other Business". With that change, the agenda was approved as amended.

## **REVIEW AND APPROVE MINUTES**

The minutes of the June 10, 2009 meeting of the MVE Committee were reviewed and approved as written.

## **TAG REPORTS**

### **Energy Code TAG**

Kristyn Clayton, Chair of the Energy Code TAG, said she's honored to chair this TAG that's composed of world-renowned energy experts and extremely passionate energy advocates. She applauded TAG members for voluntarily meeting every Friday, laboring intensely for six months, to review 172 energy code change proposals. Kristyn also expressed gratitude to Don Jordan, who co-chaired the TAG. Don wasn't able to attend today's meeting because of his wife's surgery. And finally, the success of Energy Code TAG work wouldn't have happened without Krista Braaksma, who staffs the TAG. Kristyn gave Krista her extreme thanks.

Kristyn said energy is of heightened importance this year. Energy conservation has become exciting and sexy again, after a long, long time. At the same time, the nation is in the largest economic crisis that most of us have ever seen. There are, consequently, a lot of things the Council has to weigh. Kristyn said her job now is to prepare the Council for the upcoming public hearings.

Kristyn asked Committee members to trust her on some of the energy code change proposals, those that are administrative or clarification. But for those proposals that were hotly debated or have small business, construction or enforcement cost impact, she encouraged Council members to do their homework and really study the issues, so they can make an informed vote.

Kristyn explained the Energy Code TAG matrix. Proposals are grouped into categories: 35 residential, seven residential/nonresidential applicability, six default table, 15 nonresidential envelope, 41 nonresidential mechanical, 13 nonresidential lighting, three RS-29, eight other, 42 withdrawn. Kristyn said the most important columns in the matrix are Economic Impact and TAG Recommendation. She encouraged Council members to use the matrix as a study guide.

Economic Impact includes FC, first cost for construction; EC, enforcement cost; and OC, ongoing cost to homeowners. Kristyn explained the different ratings for first cost:

- -1 minor savings, up to one-quarter percent of construction costs;
- -2 moderate savings, up to one percent of construction costs;
- 0 no cost or savings;
- +1 minor cost increase, up to one quarter percent of construction costs;
- +2 moderate cost increase, up to one percent of construction costs.

She noted there is very little detailed analysis of proposals in these groups. Kristyn said there are many enforcement cost issues among the energy code change proposals. She encouraged Council members to pay particular attention to the Economic Impact column.

Recommendations include D, disapproved; AS, as submitted; and AM, as modified. Kristyn said most proposals that the TAG recommended moving forward AS are clarification. AM proposals are those that received the most TAG debate.

Most ratings in the Policy Criteria column are 2, achieving maximum energy efficiency, or 5, correcting errors or omissions.

Shaded proposals are Loop 1, proposals of the highest priority. They include the most radical, have the potential to save the most energy, or consist of important philosophical differences.

Kristyn said if the proposals follow through the process as recommended by the Energy Code TAG and are adopted, much training will be necessary, for both enforcers and people in the field who use the WSEC.

Giving a broad overview, Kristyn's opinion is the changes "somewhat squeeze water out of the envelope rock." But she noted that while Washington's envelope requirements are arguably more stringent than other states, this year's proposals add much flexibility to them. A few envelope proposals have significant impact, regarding inspections for example. Others are clarification.

Kristyn said there are many mechanical changes, both residentially and commercially. She acknowledged these proposals are the most difficult to understand. However TAG professionals, used to dealing with these issues every day, hotly debated the mechanical proposals. Many of the sweeping changes deal with equipment control, equipment efficiency, testing of equipment and ducts. Proposals have both manufacturing and design impact. Kristyn predicted that probably a lot of the public hearing comments will revolve around the mechanical proposals.

Kristyn said there is a minority report on lighting impact from the lighting design community. There was much debate during TAG meetings about lighting provisions. Washington is on the cutting edge of LED technology in lighting design growth. Thus affordability is presently an issue that will drop in the future.

There were small business concerns about envelope issues for wood windows. A separate meeting was held to develop an alternate default table for small businesses. There was negotiation at that meeting to achieve a level playing field.

Kristyn said there was much expansion in the default tables, because Washington was behind the national standard. So there were many clarifications and updates. Small business cost impact was hotly debated. As previously mentioned, an alternate default table is being proposed for wood windows manufactured by small businesses.

Kristyn said the Governor's request for a 30 percent stringency increase in the WSEC this code cycle is another issue that she expects to be debated at the upcoming public hearings. Visitors will likely testify about how that increase matches up with other code change proposals and how it increases the economic impact.

Even though the TAG recommends moving the three RS-29 proposals forward, Kristyn said doing so is with the understanding that these will have to be revisited after all other energy code change proposals are considered, to ensure compatibility with the final code.

Other proposals were submitted by Kraig Stevenson, representing the International Code Council. Some of his proposals were disapproved. A couple were approved as modified.

Kristyn said many of the withdrawn proposals conflict with or duplicate other proposals.

Two of the assigned energy code change proposals turned out to affect plumbing more than energy and were thus transferred to the Plumbing Code TAG.

Kristyn reminded Council members that a couple of meetings ago the Council gave the Energy Code TAG direction to redefine “residential” to conform with the ICC definition.

Ray Allshouse asked if anyone has done the math, adding up all the pluses and subtracting all the minuses in the Economic Impact column. Kristyn said the short answer is no. She said the bigger question is if all proposals bring the WSEC up to 30 percent increased stringency. To that question, she said it’s unclear. She doubts it. Taking current commissioning code requirements as an example, she said they’re largely ignored by most jurisdictions. If commissioning, particularly of large commercial buildings, were not ignored, there would be substantial energy savings. Kristyn said there are proposals in the energy code change package that advance current practice significantly. The 30 percent stringency increase was identified as a goal, which the Energy Code TAG attempted to achieve. Tim said the same question was asked the Economic and Regulatory Assessment Committee (ERAC). He called attention to minutes and cost data reports on lavender paper. Generally the ERAC looks at the impact of individual measures. Tim said aggregating the numbers combines residential with nonresidential, which distorts the data.

Tom Kinsman asked if the commissioning requirements that aren’t currently being enforced are addressed in the 172 energy code change proposals. Kristyn answered that commissioning language has been significantly reworded, to hopefully increase enforcement and save energy.

Kristyn noted there are other proposals that close loopholes that have existed for many years. She said the Council needs to follow the education effort very closely, ensuring adequate funding, because education will be crucial.

Tom said rigorously enforcing the current code would move a long ways toward achieving the 30 percent stringency goal. He said the problem is that building inspectors have to do 6, 10, 12 inspections per day, looking at life/safety provisions of the code as well as energy provisions. Building inspectors also have to spend one hour at the beginning and one hour at the end of each day in the office. Tom said it’s an impossible workload. Kristyn agreed it’s an issue. She said when the nonresidential energy code was elevated as a separate entity, there was a significant effort by the state to educate enforcement, designers, contractors and jurisdictional staff. She expects the education required for 2009 code changes to rival that.

Bruce Dammeier asked for confirmation that shaded proposals in the matrix are top priority, the most controversial, those proposals the TAG feels are the most important to consider. Kristyn

agreed. She said they're the "hot buttons," representing the most savings. The Energy Code TAG filtered those proposals out to deal with first.

Angie asked about "Other" proposals that relate to the IECC. Kristyn said the two major proposals are 09-092 and 09-093. Even though the TAG disapproved these proposals, their intent will be realized when the Council moves to the IECC in 2012. Kristyn said since statute prevents decreasing the stringency of energy code provisions in Washington, stringency issues will have to be considered again. Whatever number of the 172 energy code change proposals the Council adopts in 2009, in addition to the 149 proposals identified three years ago, have to be rolled into the IECC. Kristyn said she's lobbying Tim to hire someone outside the TAG to wordsmith the crossover.

John Cochran said the minority report from Patrick Hayes and Kraig Stevenson compares sections of the WSEC with corresponding IECC and IRC Chapter 11 sections. Patrick Hayes said he submitted this minority report because despite the amendment to Motion 7 at the May 7, 2009 Council meeting specifically stating the Energy Code TAG would only consider proposals relating to the IECC, that wasn't happening. He encouraged Council members to use his minority report as a tool in comparing the three codes. Patrick's tally of the 172 proposals, subtracting out those withdrawn and disapproved, equals about 100 remaining proposals.

Kraig Stevenson added that the minority report tried to find relevant sections that could be used as "parking spots," selected as technical content desirable to Washington State. He and Patrick chose not to place any value on whether the proposals were liked, or agreed or disagreed with, because doing so was felt to be contrary to the intent of the May 7<sup>th</sup> motion.

Representative Dammeier asked if there's been any consideration of federal monies that are available to mitigate the cost of energy code change proposals. Tim said several local jurisdictions have contacted him about community development block grant funds. They are citing building code development as justification in their federal grant applications. Chuck Murray said CTED's Energy Program is administering several federal grants from the U.S. Department of Energy. He said there's also a federal grant currently that involves Washington State University (WSU) primarily, to provide training for the next 18 months. Regarding block grant monies that go to individual jurisdictions, Chuck said it's up to each jurisdiction whether or not they spend that money for energy-related programs.

Chuck said that code efficiency provisions in the Climate Action bill that recently passed the U.S. House of Representatives held strong throughout debate. That indicates to Chuck that the federal government agrees with the importance of energy efficiency.

Representative Dammeier said it's not well known that local governments smaller than 35,000 for cities and 200,000 for counties can apply for training funds to fulfill ARRA requirements. He said he'd like to make more building officials aware of those opportunities.

## **Motion #1:**

**Kristyn Clayton moved the Mechanical, Ventilation and Energy Codes Committee recommend advancing to the Council and public hearing proposals that are recommended As Submitted and As Modified by the Energy Code Technical Advisory Group. Peter DeVries seconded the motion. The motion was unanimously adopted.**

Representative Dammeier said he's interested in hearing Kristyn's top 10 proposals. Kristyn identified the following proposals as those she considers the most important:

#138	# 18	#150
69	24	151
80	25	154
111	143	157
112	27	65
141	19	60
102	161	61
140	148	51
134	160	64
81	172	62
2	41	131
default tables	43	
particularly	64	
16	147	

Tim said much written testimony has already been submitted, which will be distributed to the Council before the October work session. Kristyn added that data from the Economic and Regulatory Assessment Committee will also be included with the testimony.

## **STAFF REPORT**

Tim thanked everyone, particularly the Energy Code TAG, for their extensive, diligent work this year.

## **OTHER BUSINESS**

Kristyn objected to the Residential Code TAG reviewing and approving the code change proposal to adopt Chapter 11 of the IRC, dealing with residential energy. She said the Energy Code TAG is the appropriate TAG that proposal should have been referred to, had the proper, historical procedure been followed. Kristyn said the Chapter 11 proposal is way outside the purview of the Residential Code TAG, because that TAG lacks the expertise to consider such a proposal. Kristyn strongly objects to the Residential Code TAG's justification that it happened because the Energy Code TAG was overwhelmed with work this year. She said the Energy Code TAG would certainly have made time to consider it, even if the TAG had to meet on a Saturday.

Kristyn also noted that when the Energy Code TAG reviewed several proposals that primarily dealt with plumbing, it referred them to the Plumbing Code TAG.

Tom Kinsman noted that the Council has received confusing, conflicting directions from the Governor, Legislature and federal government this year, when it's trying to move to the IECC by 2012. He urged that the Chapter 11 proposal be moved to public hearing, because he said this proposal responds to the contractors, inspectors and manufacturers impacted by the energy code.

Mari thanked Energy Code TAG members for all their hard work.

## **ADJOURNMENT**

Lacking further business, Mari adjourned the meeting at 1:15 p.m.